

Amendments to the Specification

- 1) Please insert the following subtitle at page 1, below the title:

Background

- 2) Please delete the text found at page 1, lines 4 – 7.

To optimize the ratio of oxygen produced to on-board mass, it has been proposed to use high-performance adsorbents, in particular faujasite-type zeolites modified by digestion or having a high degree of lithium exchange, such as those described in document EP-A-0 297 542 (~~Chao invention~~) or EP-A-461 478 (~~Leavitt invention~~). In practice, the high-performance adsorbents of this type are used with an intake mixture temperature close to room temperature, below 40°C.

- 3) Please replace the paragraph at page 1, line 17 with the following:

- 4) Please insert the following subtitle and text at page 1, line 27:

Summary

The present invention relates to a method of supplying occupants of an aircraft with an oxygen-rich gas mixture by air separation in a pressure swing adsorption (PSA) system.

- 5) Please insert the following subtitle and text at page 2, line 5:

Brief Description of the Drawing

For a further understanding of the nature and objects for the present invention, reference should be made to the following detailed description, taken in conjunction with the accompanying drawing, in which like elements are given the same or analogous reference numbers and wherein:

- Figure 1 illustrates a schematic representation of one embodiment, according to the current invention, for a method of supplying an oxygen rich gas mixture to occupants of an aircraft.

- 6) Please insert the following subtitle and text after the above-inserted paragraphs:

Description of Preferred Embodiments

The present invention relates to a method of supplying occupants of an aircraft with an oxygen-rich gas mixture by air separation in a pressure swing adsorption (PSA) system.

- 7) Please replace the paragraph at page 2, line 5 with the following:

According to more particular features of the invention:

- the adsorbent, advantageously a zeolite X with a lithium content of greater than 85%, advantageously greater than 90%, has a particle size not exceeding 0.6 mm on average;
- the duration of the cycle is between about 5 and 9 seconds;
- typically, the feed air is introduced at a flow rate of between 300 and 400 ~~Sl/min~~ Nl/min (for the individual supply to a pilot or to a navigator with a useful consumption rate of between 10 and 50 ~~Sl/min~~ Nl/min under standard temperature and pressure conditions) or between 3300 and 3600 ~~Sl/min~~ Nl/min (for supply to several rows of passengers of an airliner with a useful consumption rate of between 100 and 500 ~~Sl/min~~ Nl/min); and
- the feed air is introduced at a pressure of less than 5 bar (5×10^5 Pa), the desorption pressure being close to the ambient atmospheric pressure.

- 8) Please delete the text found at page 3, lines 1 - 9.

- 9) Please replace the paragraph at page 3, line 32 with the following:

In one particular embodiment suitable for supplying commercial aircraft passengers, an oxygen supply subassembly typically comprises two twinned adsorbers 2 operating in alternating cycles and using, as adsorbent, an LiX zeolite having an Si/Al ratio between 1 and 1.25 and exchanged to more than 92% with lithium cations. The intake pressure is about 3 bar for a desorption pressure of about 0.5 bar. The flow rate of the intake air is between 3400 and 3500 ~~Sl/min~~ Nl/min. The temperature of the intake air is between 60 and 65°C and the cycle time is 2×4 seconds.

- 10) Please insert the following paragraph at page 4, line 12:

It will be understood that many additional changes in the details, materials, steps and arrangement of parts, which have been herein described in order to explain the nature of the invention, may be made by those skilled in the art within the principle and scope of the invention as expressed in the appended claims. Thus, the present invention is not intended to be limited to the specific embodiments in the examples given above.

- 11) Please replace the subtitle at page 5, line 1, with the following text:

CLAIMS What is claimed is: